

CLAIMS

1. A glass identification method for recycling a target material that includes glass, comprising the steps of:

5 irradiating the target material with X-rays to obtain a fluorescent X-ray spectrum for the target material; and

identifying the type of glass included in the target material by analyzing and comparing the fluorescent X-ray spectrum group for a specific substance group with the fluorescent X-ray spectrum of the target material,

10 wherein the step of identifying the type of glass involves performing compositional analysis of the fluorescent X-ray spectrum of the target material and compositional analysis of the fluorescent X-ray spectrum group of the specific substance group, comparing the analysis results, and determining the degree of agreement.

15 2. A glass identification method for recycling a target material that includes glass, comprising the steps of:

irradiating the target material with X-rays to obtain a fluorescent X-ray spectrum for the target material; and

20 identifying the type of glass included in the target material by analyzing and comparing the fluorescent X-ray spectrum group for a specific substance group with the fluorescent X-ray spectrum of the target material,

wherein the step of identifying the type of glass involves finding the difference between the fluorescent X-ray spectrum of the target material and the various spectra of the fluorescent X-ray spectrum group of the specific substance group, and determining the degree of agreement.

25 3. The glass identification method according to Claim 1 or 2, wherein the target material and/or the specific substance group is a glass substrate used for a display.

30 4. The glass identification method according to Claim 1 or 2, wherein the target material and the specific substance group include at least one element selected from potassium, calcium, iron, strontium, zirconium, barium, and hafnium.

5. A glass identification apparatus, comprising:

an X-ray tube for irradiating a target material that includes glass with X-rays;

35 a detector for measuring the intensity of fluorescent X-rays emitted from the target material;

a memory unit for storing data of the fluorescent X-ray spectrum group of the specific substance group; and

5 a computing unit for identifying the type of glass included in the target material by finding the fluorescent X-ray spectrum of the target material from the measurement results of the detector, and analyzing and comparing the fluorescent X-ray spectrum of the target material with the data for the fluorescent X-ray spectrum group of the specific substance group.